PCT

```
RAW SEQUENCE LISTING              DATE: 02/22/2005
PATENT APPLICATION:  US/10/523,329   TIME: 08:55:02

Input Set : A:\AL-11-C1-PCT.ST25.txt
Output Set: N:\CRF4\02222005\J523329.raw
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 3 <110> APPLICANT: Jardetzky, Theodore S.
 4         Wurzburg, Beth A.
 6 <120> TITLE OF INVENTION: MUTANTS OF IgE PROTEINS AND USES THEREOF
 8 <130> FILE REFERENCE: AL-11-C1-PCT
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/523,329
C--> 11 <141> CURRENT FILING DATE: 2005-02-01
13 <150> PRIOR APPLICATION NUMBER: 60/319,446
14 <151> PRIOR FILING DATE: 2002-08-02
16 <150> PRIOR APPLICATION NUMBER: 10/211,948
17 <151> PRIOR FILING DATE: 2002-08-01
19 <160> NUMBER OF SEQ ID NOS: 49
21 <170> SOFTWARE: PatentIn version 3.2
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 669
25 <212> TYPE: DNA
26 <213> ORGANISM: Homo sapiens
29 <220> FEATURE:
30 <221> NAME/KEY: CDS
31 <222> LOCATION: (1)..(666)
33 <400> SEQUENCE: 1
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35 Ala Asp Pro Cys Asp Ser Asn Pro Arg Gly Val Ser Ala Tyr Leu Ser
36 1               5                   10                  15
38 cgg ccc agc ccg ttc gac ctg ttc atc cgc aag tcg ccc acg atc acc       96
39 Arg Pro Ser Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr Ile Thr
40              20                  25                  30
42 tgt ctg gtg gtg gac ctg gca ccc agc aag ggg acc gtg aac ctg acc      144
43 Cys Leu Val Val Asp Leu Ala Pro Ser Lys Gly Thr Val Asn Leu Thr
44          35                  40                  45
46 tgg tcc cgg gcc agt ggg aag cct gtg aac cac tcc acc aga aag gag      192
47 Trp Ser Arg Ala Ser Gly Lys Pro Val Asn His Ser Thr Arg Lys Glu
48      50                  55                  60
50 gag aag cag cgc aat ggc acg tta acc gtc acg tcc acc ctg ccg gtg      240
51 Glu Lys Gln Arg Asn Gly Thr Leu Thr Val Thr Ser Thr Leu Pro Val
52 65                  70                  75                  80
54 ggc acc cga gac tgg atc gag ggg gag acc tac cag tgc agg gtg acc      288
55 Gly Thr Arg Asp Trp Ile Glu Gly Glu Thr Tyr Gln Cys Arg Val Thr
56              85                  90                  95
58 cac ccc cac ctg ccc agg gcc ctc atg cgg tcc acg acc aag acc agc      336
59 His Pro His Leu Pro Arg Ala Leu Met Arg Ser Thr Thr Lys Thr Ser
60              100                 105                 110
62 ggc ccg cgt gct gcc ccg gaa gtc tat gcg ttt gcg acg ccg gag tgg      384
63 Gly Pro Arg Ala Ala Pro Glu Val Tyr Ala Phe Ala Thr Pro Glu Trp
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RAW SEQUENCE LISTING   DATE: 02/22/2005
PATENT APPLICATION: US/10/523,329   TIME: 08:55:02

Input Set : A:\AL-11-C1-PCT.ST25.txt
Output Set: N:\CRF4\02222005\J523329.raw

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64          115                  120                  125
66 ccg ggg agc cgg gac aag cgc acc ctc gcc tgc ctg atc cag aac ttc    432
67 Pro Gly Ser Arg Asp Lys Arg Thr Leu Ala Cys Leu Ile Gln Asn Phe
68          130                  135                  140
70 atg cct gag gac atc tcg gtg cag tgg ctg cac aac gag gtg cag ctc    480
71 Met Pro Glu Asp Ile Ser Val Gln Trp Leu His Asn Glu Val Gln Leu
72 145                  150                  155                  160
74 ccg gac gcc cgg cac agc acg acg cag ccc cgc aag acc aag ggc tcc    528
75 Pro Asp Ala Arg His Ser Thr Thr Gln Pro Arg Lys Thr Lys Gly Ser
76          165                  170                  175
78 ggc ttc ttc gtc ttc agc cgc ctg gag gtg acc agg gcc gaa tgg gag    576
79 Gly Phe Phe Val Phe Ser Arg Leu Glu Val Thr Arg Ala Glu Trp Glu
80          180                  185                  190
82 cag aaa gat gag ttc atc tgc cgt gca gtc cat gag gca gcg agc ccc    624
83 Gln Lys Asp Glu Phe Ile Cys Arg Ala Val His Glu Ala Ala Ser Pro
84          195                  200                  205
86 tca cag acc gtc cag cga gcg gtg tct gta aat ccc ggt aaa tga    669
87 Ser Gln Thr Val Gln Arg Ala Val Ser Val Asn Pro Gly Lys
88          210                  215                  220
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92 <211> LENGTH: 222
93 <212> TYPE: PRT
94 <213> ORGANISM: Homo sapiens
96 <400> SEQUENCE: 2
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99 1                   5                   10                  15
102 Arg Pro Ser Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr Ile Thr
103          20                  25                  30
106 Cys Leu Val Val Asp Leu Ala Pro Ser Lys Gly Thr Val Asn Leu Thr
107          35                  40                  45
110 Trp Ser Arg Ala Ser Gly Lys Pro Val Asn His Ser Thr Arg Lys Glu
111          50                  55                  60
114 Glu Lys Gln Arg Asn Gly Thr Leu Thr Val Thr Ser Thr Leu Pro Val
115 65                  70                  75                  80
118 Gly Thr Arg Asp Trp Ile Glu Gly Glu Thr Tyr Gln Cys Arg Val Thr
119          85                  90                  95
122 His Pro His Leu Pro Arg Ala Leu Met Arg Ser Thr Thr Lys Thr Ser
123          100                 105                 110
126 Gly Pro Arg Ala Ala Pro Glu Val Tyr Ala Phe Ala Thr Pro Glu Trp
127          115                 120                 125
130 Pro Gly Ser Arg Asp Lys Arg Thr Leu Ala Cys Leu Ile Gln Asn Phe
131          130                 135                 140
134 Met Pro Glu Asp Ile Ser Val Gln Trp Leu His Asn Glu Val Gln Leu
135 145                 150                 155                 160
138 Pro Asp Ala Arg His Ser Thr Thr Gln Pro Arg Lys Thr Lys Gly Ser
139          165                 170                 175
142 Gly Phe Phe Val Phe Ser Arg Leu Glu Val Thr Arg Ala Glu Trp Glu
143          180                 185                 190
146 Gln Lys Asp Glu Phe Ile Cys Arg Ala Val His Glu Ala Ala Ser Pro
```

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150 Ser Gln Thr Val Gln Arg Ala Val Ser Val Asn Pro Gly Lys
151     210              215              220
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155 <211> LENGTH: 29
156 <212> TYPE: DNA
157 <213> ORGANISM: Artificial sequence
159 <220> FEATURE:
160 <223> OTHER INFORMATION: Synthetic Primer
162 <400> SEQUENCE: 3
163 tagggctacg tagattccaa cccgagagg                              29
166 <210> SEQ ID NO: 4
167 <211> LENGTH: 43
168 <212> TYPE: DNA
169 <213> ORGANISM: Artificial sequence
171 <220> FEATURE:
172 <223> OTHER INFORMATION: Synthetic Primer
174 <400> SEQUENCE: 4
175 actggctcga gaccaggtca gctgcacggt ccccttgctg ggt              43
178 <210> SEQ ID NO: 5
179 <211> LENGTH: 53
180 <212> TYPE: DNA
181 <213> ORGANISM: Artificial sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: Synthetic Primer
186 <400> SEQUENCE: 5
187 cctggtctcg agccagtggg aagcctgtgc aacactccac cagaaaggag gag    53
190 <210> SEQ ID NO: 6
191 <211> LENGTH: 39
192 <212> TYPE: DNA
193 <213> ORGANISM: Artificial sequence
195 <220> FEATURE:
196 <223> OTHER INFORMATION: Synthetic Primer
198 <400> SEQUENCE: 6
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203 <211> LENGTH: 672
204 <212> TYPE: DNA
205 <213> ORGANISM: Homo sapiens
208 <220> FEATURE:
209 <221> NAME/KEY: CDS
210 <222> LOCATION: (1)..(672)
212 <400> SEQUENCE: 7
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215 1               5                   10                  15
217 agc cgg ccc agc ccg ttc gac ctg ttc atc cgc aag tcg ccc acg atc   96
218 Ser Arg Pro Ser Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr Ile
219         20                  25                  30
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221 acc tgt ctg gtg gtg gac ctg gca ccc agc aag ggg acc gtg cag ctg     144
222 Thr Cys Leu Val Val Asp Leu Ala Pro Ser Lys Gly Thr Val Gln Leu
223         35                  40                  45
225 acc tgg tcc cgg gcc agt ggg aag cct gtg caa cac tcc acc aga aag     192
226 Thr Trp Ser Arg Ala Ser Gly Lys Pro Val Gln His Ser Thr Arg Lys
227     50                  55                  60
229 gag gag aag cag cgc aat ggc acg tta acc gtc acg tcc acc ctg ccg     240
230 Glu Glu Lys Gln Arg Asn Gly Thr Leu Thr Val Thr Ser Thr Leu Pro
231 65                  70                  75                  80
233 gtg ggc acc cga gac tgg atc gag ggg gag acc tac cag tgc agg gtg     288
234 Val Gly Thr Arg Asp Trp Ile Glu Gly Glu Thr Tyr Gln Cys Arg Val
235             85                  90                  95
237 acc cac ccc cac ctg ccc agg gcc ctc atg cgg tcc acg acc aag acc     336
238 Thr His Pro His Leu Pro Arg Ala Leu Met Arg Ser Thr Thr Lys Thr
239             100                 105                 110
241 agc ggc ccg cgt gct gcc ccg gaa gtc tat gcg ttt gcg acg ccg gag     384
242 Ser Gly Pro Arg Ala Ala Pro Glu Val Tyr Ala Phe Ala Thr Pro Glu
243         115                 120                 125
245 tgg ccg ggg agc cgg gac aag cgc acc ctc gcc tgc ctg atc cag aac     432
246 Trp Pro Gly Ser Arg Asp Lys Arg Thr Leu Ala Cys Leu Ile Gln Asn
247     130                 135                 140
249 ttc atg cct gag gac atc tcg gtg cag tgg ctg cac aac gag gtg cag     480
250 Phe Met Pro Glu Asp Ile Ser Val Gln Trp Leu His Asn Glu Val Gln
251 145                 150                 155                 160
253 ctc ccg gac gcc cgg cac agc acg acg cag ccc cgc aag acc aag ggc     528
254 Leu Pro Asp Ala Arg His Ser Thr Thr Gln Pro Arg Lys Thr Lys Gly
255             165                 170                 175
257 tcc ggc ttc ttc gtc ttc agc cgc ctg gag gtg acc agg gcc gaa tgg     576
258 Ser Gly Phe Phe Val Phe Ser Arg Leu Glu Val Thr Arg Ala Glu Trp
259         180                 185                 190
261 gag cag aaa gat gag ttc atc tgc cgt gca gtc cat gag gca gcg agc     624
262 Glu Gln Lys Asp Glu Phe Ile Cys Arg Ala Val His Glu Ala Ala Ser
263         195                 200                 205
265 ccc tca cag acc gtc cag cga gcg gtg tct gta aat ccc ggt aaa tga     672
266 Pro Ser Gln Thr Val Gln Arg Ala Val Ser Val Asn Pro Gly Lys
267     210                 215                 220
270 <210> SEQ ID NO: 8
271 <211> LENGTH: 223
272 <212> TYPE: PRT
273 <213> ORGANISM: Homo sapiens
275 <400> SEQUENCE: 8
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278 1               5                   10                  15
281 Ser Arg Pro Ser Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr Ile
282         20                  25                  30
285 Thr Cys Leu Val Val Asp Leu Ala Pro Ser Lys Gly Thr Val Gln Leu
286         35                  40                  45
289 Thr Trp Ser Arg Ala Ser Gly Lys Pro Val Gln His Ser Thr Arg Lys
290     50                  55                  60
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RAW SEQUENCE LISTING   DATE: 02/22/2005
PATENT APPLICATION: US/10/523,329   TIME: 08:55:02

Input Set : A:\AL-11-C1-PCT.ST25.txt
Output Set: N:\CRF4\02222005\J523329.raw

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293 Glu Glu Lys Gln Arg Asn Gly Thr Leu Thr Val Thr Ser Thr Leu Pro
294 65              70              75                  80
297 Val Gly Thr Arg Asp Trp Ile Glu Gly Glu Thr Tyr Gln Cys Arg Val
298             85              90              95
301 Thr His Pro His Leu Pro Arg Ala Leu Met Arg Ser Thr Thr Lys Thr
302         100             105             110
305 Ser Gly Pro Arg Ala Ala Pro Glu Val Tyr Ala Phe Ala Thr Pro Glu
306         115             120             125
309 Trp Pro Gly Ser Arg Asp Lys Arg Thr Leu Ala Cys Leu Ile Gln Asn
310     130             135             140
313 Phe Met Pro Glu Asp Ile Ser Val Gln Trp Leu His Asn Glu Val Gln
314 145             150             155                 160
317 Leu Pro Asp Ala Arg His Ser Thr Thr Gln Pro Arg Lys Thr Lys Gly
318             165             170             175
321 Ser Gly Phe Phe Val Phe Ser Arg Leu Glu Val Thr Arg Ala Glu Trp
322         180             185             190
325 Glu Gln Lys Asp Glu Phe Ile Cys Arg Ala Val His Glu Ala Ala Ser
326         195             200             205
329 Pro Ser Gln Thr Val Gln Arg Ala Val Ser Val Asn Pro Gly Lys
330     210             215             220
333 <210> SEQ ID NO: 9
334 <211> LENGTH: 44
335 <212> TYPE: DNA
336 <213> ORGANISM: Artificial sequence
338 <220> FEATURE:
339 <223> OTHER INFORMATION: Synthetic Primer
341 <400> SEQUENCE: 9
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346 <211> LENGTH: 663
347 <212> TYPE: DNA
348 <213> ORGANISM: Homo sapiens
351 <220> FEATURE:
352 <221> NAME/KEY: CDS
353 <222> LOCATION: (1)..(663)
355 <400> SEQUENCE: 10
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358 1               5                   10                  15
360 agc ccg ttc gac ctg ttc atc cgc aag tcg ccc acg atc acc tgt ctg   96
361 Ser Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr Ile Thr Cys Leu
362             20                  25                  30
364 gtg gtg gac ctg gca ccc agc aag ggg acc gtg aac ctg acc tgg tcc  144
365 Val Val Asp Leu Ala Pro Ser Lys Gly Thr Val Asn Leu Thr Trp Ser
366         35                  40                  45
368 cgg gcc agt ggg aag cct gtg aac cac tcc acc aga aag gag gag aag  192
369 Arg Ala Ser Gly Lys Pro Val Asn His Ser Thr Arg Lys Glu Glu Lys
370     50                  55                  60
372 cag cgc aat ggc acg tta acc gtc acg tcc acc ctg ccg gtg ggc acc  240
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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/523,329

DATE: 02/22/2005
TIME: 08:55:03

Input Set : **A:\AL-11-C1-PCT.ST25.txt**
Output Set: **N:\CRF4\02222005\J523329.raw**

<u>**Invalid <213> Response:**</u>
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49

VERIFICATION SUMMARY
PATENT APPLICATION: **US/10/523,329**

DATE: 02/22/2005
TIME: 08:55:03

Input Set : **A:\AL-11-C1-PCT.ST25.txt**
Output Set: **N:\CRF4\02222005\J523329.raw**

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date